WE CLAIM:

1. A method of modifying the activity of nucleotide binding proteins within cells comprising:

a) introducing into cells polynucleotide sequences capable of binding to nucleotide binding proteins;

b) binding within cells the polynucleotide sequences to the nucleotide binding proteins; and

c) modifying within cells the activity of the nucleotide binding proteins with said binding.

2. The method according to Claim 1, wherein the polynucleotide sequences are introduced into the cells by electroporation.

3. The method according to Claim 1, wherein the polynucleotide sequences are introduced into the cells by applying the polynucleotide sequences to the surface of the cells.

4. The method according to Claim 3, wherein the polynucleotide sequences are packaged in liposomes.

5. The method according to Claim 3, wherein the polynucleotide sequences are applied to the surface of the cells along with a detergent.

6. The method according to Claim 1, wherein the cells are tissue culture cells.

7. The method according to Claim 1, wherein the cells are non-human cells.

8. The method according to Claim 1, wherein the cells are non-human mammalian cells.

9. The method according to Claim 1, wherein the cells are avian cells.

10. The method according to Claim 1, wherein the cells are non-human tissue culture cells.

11. The method according to Claim 1, wherein the polynucleotide sequences further comprise isolated and purified RNA molecules.

12. The method according to Claim 1, wherein the polynucleotide sequences further comprise synthetic RNA molecules.

13. The method according to Claim 1, wherein the polynucleotide sequences further comprise synthetic RNA analogs.

14. The method according to Claim 1, wherein the polynucleotide sequences are single-stranded.

15. The method according to Claim 1, wherein the step of modifying within cells the activity of the nucleotide binding proteins further comprises regulating the activity of the nucleotide binding proteins.

16. The method according to Claim 1, wherein the step of modifying within cells the activity of the nucleotide binding further comprises reducing the activity of the nucleotide binding proteins.

17. The method according to Claim 1, wherein the step of modifying within cells the activity of the nucleotide binding proteins further comprises blocking the activity of the nucleotide binding proteins.

18. The method according to Claim 1, wherein the step of modifying within cells the activity of the nucleotide binding proteins further comprises binding the polynucleotide sequences reversibly.

19. The method according to Claim 1, wherein the step of modifying within cells the activity of the nucleotide binding proteins further comprises binding the polynucleotide sequences irreversibly.

20. The method according to Claim 1, further comprising the step of causing an effect within cells in the processing of RNA by modifying the activity of the nucleotide binding proteins.

21. The method according to Claim 1, further comprising the step of determining the effect in the processing of RNA by the resulting phenotypic characteristics of the cells.

22. The method according to Claim 1, further comprising the step of determining the effect in the processing of RNA by Northern blot analysis of cell extracts.

23. A method of modifying the activity of RNA binding proteins within cells comprising:

a) introducing into cells polynucleotide sequences capable of binding to RNA binding proteins;

b) binding within cells the polynucleotide sequences to the RNA binding proteins; and

c) modifying within cells the activity of the RNA binding proteins with said binding.

24. The method according to Claim 23, further comprising the step of causing an effect within cells in the processing of RNA by modifying the activity of the RNA binding proteins.

25. A method of modifying the activity of RNA alternative splicing regulatory proteins within cells comprising:

a) introducing into cells polynucleotide sequences capable of binding to RNA alternative splicing regulatory proteins;

b) binding within cells the polynucleotide sequences to the RNA alternative splicing regulatory proteins; and

c) modifying within cells the activity of the RNA alternative splicing regulatory proteins with said binding.

26. The method according to Claim 25, further comprising the step of causing an effect within cells in the processing of RNA by modifying the activity of the RNA alternative splicing regulatory proteins.

27. A method of modifying the activity of hnRNP proteins within cells comprising:

a) introducing into cells polynucleotide sequences capable of binding to hnRNP proteins;

b) binding within cells the polynucleotide sequences to the hnRNP proteins; and

c) modifying within cells the activity of the hnRNP proteins with said binding.

28. The method according to Claim 27, further comprising the step of causing an effect within cells in the processing of RNA by modifying the activity of the hnRNP proteins.

29. A method of modifying the activity of hnRNP A1 proteins within cells comprising:

a) introducing into cells polynucleotide sequences capable of binding to hnRNP A1 proteins;

b) binding within cells the polynucleotide sequences to the hnRNP A1 proteins; and

c) modifying within cells the activity of the hnRNP A1 proteins with said binding.

30. The method according to Claim 29, further comprising the step of causing an effect within cells in the processing of RNA by modifying the activity of the hnRNP A1 proteins.

31. A method of modifying the activity of nucleotide binding proteins within cells comprising:

a) introducing into cells polynucleotide sequences complementary to binding sites of nucleotide binding proteins;

b) binding within cells the polynucleotide sequences to the nucleotide binding proteins; and

c) modifying within cells the activity of the nucleotide binding proteins with said binding.

32. The method according to Claim 31, further comprising the step of causing an effect within cells in the processing of RNA by modifying the activity of the nucleotide binding proteins.

33. The method according to Claim 31, wherein said nucleotide binding proteins are RNA binding proteins.

34. The method according to Claim 31, wherein said nucleotide binding proteins are RNA alternative splicing regulatory proteins.

35. The method according to Claim 31, wherein said nucleotide binding proteins are hnRNP proteins.

36. The method according to Claim 31, wherein said nucleotide binding proteins are hnRNP A1 proteins.

37. A method of modifying the activity of nucleotide binding proteins within cells comprising:

a) introducing into cells polynucleotide sequences that bind to nucleotide binding proteins;

b) binding within cells the polynucleotide sequences to the nucleotide binding proteins; and

c) modifying within cells the activity of the nucleotide binding proteins with said binding.

38. The method according to Claim 37, further comprising the step of causing an effect within cells in the processing of RNA by modifying the activity of the nucleotide binding proteins.

39. The method according to Claim 37, wherein said nucleotide binding proteins are RNA binding proteins.

40. The method according to Claim 37, wherein said nucleotide binding proteins are RNA alternative splicing regulatory proteins.

41. The method according to Claim 37, wherein said nucleotide binding proteins are hnRNP proteins.

42. The method according to Claim 37, wherein said nucleotide binding proteins are hnRNP A1 proteins.

43. A method of influencing splice choice in RNA within cells comprising:

a) introducing into cells polynucleotide sequences that bind to nucleotide binding proteins;

b) binding within cells the polynucleotide sequences to the nucleotide binding proteins; and

c) modifying within cells the activity of the nucleotide binding proteins with said binding.

44. The method according to Claim 43, further comprising the step of influencing RNA splice choice within cells by modifying the activity of the nucleotide binding proteins.

45. The method according to Claim 43, wherein said nucleotide binding proteins are RNA binding proteins.

46. The method according to Claim 44, wherein said nucleotide binding proteins are RNA alternative splicing regulatory proteins.

47. The method according to Claim 45, wherein said nucleotide binding proteins are hnRNP proteins.

48. The method according to Claim 46, wherein said nucleotide binding proteins are hnRNP A1 proteins.

49. A composition comprising a non-naturally occuring polynucleotide sequence that binds within cells to an hnRNP A1 protein of Seq. ID No. 2 and modifies the activity of the hnRNP A1 protein.

50. The composition according to Claim 49, wherein said non-naturally occuring polynucleotide sequence further comprises a synthetic polynucleotide sequence.

51. The composition according to Claim 49, wherein said non-naturally occuring polynucleotide sequence further comprises a polynucleotide sequence analog.

52. The composition according to Claim 49, wherein said non-naturally occuring polynucleotide sequence binds to an hnRNP A1 protein of Seq. ID No. 2 under physiological conditions and modifies the activity of the hnRNP A1 protein.

53. The composition according to Claim 49, wherein said non-naturally occuring polynucleotide sequence influences RNA splice choice within cells by modifying the activity of the nucleotide binding proteins.

54. A composition comprising a non-naturally occuring polynucleotide sequence bound to an hnRNP A1 protein.